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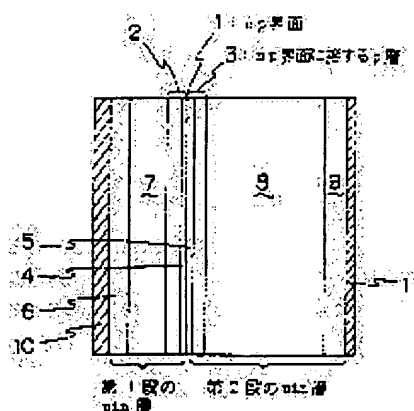
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(54) SEMICONDUCTOR DEVICE

(57)Abstract:

PURPOSE: To obtain a high-performance amorphous silicon multijunction type solar cell by a method wherein a high concentration impurity layer which has an impurity concentration high enough to accelerate carrier recombination is provided in an n-p or p-n boundary part.

CONSTITUTION: A high concentration impurity layer which has an impurity concentraion high enough to accelerate carrier recombination is provided in an n-p or p-n boundary part of a multijunction type photosensor. If the n-p or p-n boundary part is composed of the partial layers of the p-type layer and/or the n-type layer, the thickness of that part is usually 10~700 \AA ; approximately. The n-p or p-n boundary part may be the partial layers 4 and 5 of a p-type layer 3 and/or n-type layer 2 which are contacted with the n-p or p-n boundary 1 or a new layer which is doped with element other than p-type dopant or n-type dopant and is provided between the n-type layer and the p-type layer of the n-p or p-n boundary or the combination of them. With this constitution, η , Voc and FF of a solar battery can be improved.



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